

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Darrell H. Carney and Shyam Ramakrishnan

Continuation Application of

Application No.: 09/777,328

Filed: February 5, 2001

Title: SYNTHETIC PEPTIDE NEUTROPHIL CELL CHEMOTACTIC AGENTS

Date: <u>11-20-03</u> EXPRESS MAIL LABEL NO. <u>EV 214935180US</u>
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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Information Disclosure Statement is submitted:

- ☐ under 37 CFR 1.129(a), or  
(First/Second submission after Final Rejection)
- ☒ under 37 CFR 1.97(b), or  
(Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination).
- ☐ under 37 CFR 1.97(c) together with either:
- ☐ a Statement under 37 CFR 1.97(e), as checked below, or
- ☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97(d) together with:
- ☐ a Statement under 37 CFR 1.97(e), as checked below, and
- ☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)
- ☐ under 37 CFR 1.97(i):  
Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.  
(Filed after payment of issue fee)

Statement Under 37 CFR 1.97(e)

- ☐ Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or
- ☐ No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Statement Under 37 CFR 1.704(d) (Patent Term Adjustment)

Applies to original applications (other than design) filed on or after May 29, 2000

- ☐ Each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.
- ☒ Enclosed herewith is form PTO-1449:
- ☐ Copies of the cited references are enclosed.
- ☐ Since this application was filed after June 30, 2003, copies of issued U.S. patents and published U.S. applications are not required and are not being provided.
- ☒ Copies of the cited references are enclosed except those entered in prior application, U.S. Application No. 09/777,328, to which priority under 35 U.S.C. 120 is claimed. [The earlier application contains copies of the cited references.]
- ☐ The listed references were cited in the enclosed International Search Report in a counterpart foreign application.
- ☐ The "concise explanation" requirement (non-English references) for reference(s) [ ] under 37 CFR 1.98(a)(3) is satisfied by:
- ☐ the explanation provided on the attached sheet.
- ☐ the explanation provided in the Specification.
- ☐ submission of the enclosed International Search Report.
- ☐ submission of the enclosed English-language version of a foreign Search Report and/or foreign Office Action.
- ☐ the enclosed English language abstract.

☐ Applicant requests that the following non-published pending applications be considered:

Examiner's  
Initials

\_\_\_\_\_ U.S. Patent Application No. [     ], by [inventor(s)], filed [     ], Docket No.: [     ]

\_\_\_\_\_ U.S. Patent Application No. [     ], by [inventor(s)], filed [     ], Docket No.: [     ]

\_\_\_\_\_ U.S. Patent Application No. [     ], by [inventor(s)], filed [     ], Docket No.: [     ]

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Examiner

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Date

☐ A copy of each above-cited application, including the current claims, is enclosed.

☐ A copy of each above-cited application, including the current claims, is enclosed, except those entered in prior application, U.S. Application No. [     ], to which priority under 35 U.S.C. 120 is claimed.

The Examiner is requested to return a copy of the above list of pending applications indicating which references were considered with the next office communication.

It is requested that the information disclosed herein be made of record in this application.

Method of payment:

☐ A check for the fee noted above is enclosed, or the fee has been included in the check with the accompanying Reply. A copy of this Statement is enclosed.

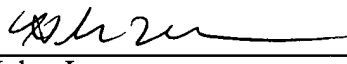
☐ Please charge Deposit Account 08-0380 in the amount of \$[     ]. A copy of this Statement is enclosed.

☐ Please charge any deficiency in fees and credit any overpayment to Deposit Account 08-0380.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By

  
Helen Lee

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Concord, MA 01742-9133

Dated: *November 20, 2003*

PTO-1449 REPRODUCED  <b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  <b>November 20, 2003</b>  (Use several sheets if necessary)	ATTORNEY DOCKET NO. 3033.1005-003		Continuation of Appl. No.: 09/777,328	
	FIRST NAMED INVENTOR Darrell H. Carney		FILING DATE	
	EXAMINER	CONFIRMATION NO.	GROUP	

## U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL	REF. NO.	DOCUMENT NUMBER Number-Kind Code (if known)	ISSUE DATE / PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT
	AA	5,840,499	11/1998	Brass, <i>et al.</i>
	AB	6,184,342	02/06/2001	Carney, <i>et al.</i>
	AC	5,849,507	12/15/1998	Coughlin
	AD	5,798,248	08/25/1998	Coughlin, <i>et al.</i>
	AE	5,763,575	06/09/1998	Sundelin, <i>et al.</i>
	AF	5,759,994	06/02/1998	Coughlin, <i>et al.</i>
	AG	5,716,789	02/10/1998	Sundelin, <i>et al.</i>
	AH	5,688,768	11/18/1997	Coughlin, <i>et al.</i>
	AI	5,629,174	05/13/1997	Sundelin, <i>et al.</i>
	AJ	5,256,766	10/26/1993	Coughlin
	AK			
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FOREIGN PATENT DOCUMENTS						
		DOCUMENT NUMBER Country Code-Number-Kind Code (if known)	DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT	TRANSLATION YES NO	
	AL	WO 92/14750	09/03/92	PCT		
	AM					
	AN					
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	AM2					
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
AR	Cooper <i>et al.</i> , The Biochemical Basis of Neuropharm. Oxford Univ. Press, NY, pp. 93-94, (1986) .	
AS	Carney, D.H.. "Postclotting cellular effects of thrombin mediated by interaction with high-affinity thrombin receptors" in <i>Thrombin Structure and Function</i> . L. Berliner, ed. Plenum, New York. 351 (1992).	
AT	Carney, D.H. <i>et al.</i> . "Role of high-affinity thrombin receptors in postclotting effects of thrombin," <i>Semin. Thromb. Hemost.</i> 18: 91, (1992).	
AU	Carney, D.H. <i>et al.</i> , "Conditions which affect initiation of animal cell division by trypsin and thrombin," <i>J. Cell, Physiol.</i> 95:13 (1978).	
AV	Perez-Rodriguez, R. <i>et al.</i> , "Growth factor requirements of Chinese hamster lung fibroblasts in serum-free media: High mitogenic reaction of thrombin," <i>Cell Biol. Int. Rep.</i> 5:347, (1981).	
AW	Belloni, P.N. <i>et al.</i> , "Isolation and partial characterization of murine and human endothelial cells from various organs: Differential responsiveness to thrombin and other growth factors," <i>Microvas. Res.</i> 43: 20 (1992).	
AX	He, C.-J. <i>et al.</i> , "Thrombin increases proliferation and decreases fibrinolytic activity of kidney glomerular epithelial cells," <i>J. Cell. Physiol.</i> 146:131 (1991).	
AY	Gurwitz, D. & D.D. Cunningham, "Thrombin modulates and reverses neuroblastoma neurite outgrowth," <i>Proc. Natl. Acad. Sci. USA.</i> 85:3440 (1988).	
AZ	Bar-Shavit, R. <i>et al.</i> , "Identification of a thrombin sequence with growth factor activity on macrophages," <i>Proc. Natl. Acad. Sci. USA.</i> 83:976 (1986).	
AR2	Naldini, A., <i>et al.</i> , "Thrombin enhances T cell proliferative responses and cytokine production," <i>Cell. Immunol.</i> 147:367 (1993).	
AS2	Carney, D.H. <i>et al.</i> , "Enhancement of incisional wound healing and neovascularization in normal rats by thrombin and synthetic thrombin receptor-activating peptides," <i>J. Clin. Invest.</i> 89:1469 (1992).	

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
AT2	Stiernberg, J. <i>et al.</i> ; "The role of thrombin and thrombin receptor activating peptide (TRAP-508) in initiation of tissue repair," <i>Thrombosis and Haemostasis</i> . 70:158 (1993).	
AU2	Vu, T.-K.H. <i>et al.</i> , "Molecular cloning of a functional thrombin receptor reveals a novel proteolytic mechanism of receptor activation," <i>Cell</i> . 64:1057 (1991).	
AV2	Rasmussen, U.B. <i>et al.</i> , "cDNA cloning and expression of a hamster thrombin receptor coupled to Ca.sup.+2 mobilization," <i>FEBS Letters</i> . 288:123 (1991).	
AW2	Zhong, C. <i>et al.</i> , "Molecular cloning of the rat vascular smooth muscle thrombin receptor: Evidence for in vitro regulation by basic fibroblast growth factor," <i>J. Biol. Chem.</i> 267:16975 (1992).	
AX2	Van Obberghen-Schilling, E. & J, "Pouyssegur Alpha-thrombin receptors and growth signaling," <i>Semin. Thromb. Hemos.</i> 19:378 (1993).	
AY2	Kalmer, J.R. <i>et al.</i> , "Superior leukocyte separation with a discontinuous one-step Ficoll-Hypaque gradient for the isolation of human neutrophils," <i>J. Immunol. Meth.</i> 110: 275 (1988).	
AZ2	Mansfield, P.J., L.A. Boxer & S.J. Suchard. 1990. Thrombospondin stimulates motility of human neutrophils. <i>J. Cell Biol.</i> 111: 3077.	
AR3	Harlow, E. & D, "Lane Antibodies: a laboratory manual," Cold Spring Harbor Laboratory, Cold Spring Harbor, New York. pp. 726 (1988).	
AS3	Fraker, P.J. & Speck, J.C., Jr., "Protein and cell membrane iodinations with a sparingly soluble chloramide 1,3,4,6-tris(4-chlorophenyl)-3,6-diphenylglycoluril," <i>Biochem. Biophys. Res. Comm.</i> 80(4):849-857 (1978).	
AT3	Thomas, M.J. <i>et al.</i> , "Superoxide generation by the human polymorphonuclear leukocytes in response to latex beads," <i>J. Leukoc. Biol.</i> 51:591 (1992).	
AU3	Howells, G.L. <i>et al.</i> , "Peripheral blood lymphocytes express the platelet-type thrombin receptor," <i>Br. J. Haemat.</i> 84:156 (1993).	
AV3	Hoffman, M. & F.C. Church, "Response of blood leukocytes to thrombin receptor peptides," <i>J. Leukoc. Biol.</i> 54:145 (1993).	

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
	AW3	Glenn, K.C. <i>et al.</i> , "Synthetic peptides bind to high-affinity thrombin receptors and modulate thrombin mitogenesis," <i>Peptide Res.</i> 1:65 (1988).
	AX3	GenBank Accession No. P25116, Locus PAR1_HUMAN, "Proteinase activated receptor 1 precursor (PAR-1) (Thrombin Receptor) (Coagulation factor II receptor)" (1991).
	AY3	GenBank Accession No. A37912, Locus A37912, "Thrombin receptor precursor - human" (1999).
	AZ3	Bowie, J.U., <i>et al.</i> , "Deciphering the Message in Protein Sequences: Tolerance to Amino Acid Substitutions," <i>Science</i> , 247:1306-1310 (1990).
	AR4	Burgess, W.H., <i>et al.</i> , "Possible Dissociation of the Heparin-binding and Mitogenic Activities of Heparin-binding (Acidic Fibroblast) Growth Factor-1 from Its Receptor-binding Activities by Site-directed Mutagenesis of a Single Lysine Residue", <i>J. Cell Biol.</i> ; 111:2129-2138 (1990).
	AS4	Lazar, E., <i>et al.</i> , "Transforming Growth Factor $\alpha$ : Mutation of Aspartic Acid 47 and Leucine 48 Results in Different Biological Activities," <i>Mol. Cell Biol.</i> , 8:1247-1252 (1988).

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